



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

Bcd + 2

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/365,517	08/02/1999	HAMID K. AGHAJAN	M-7793-US	1904

24251 7590 03/27/2002

SKJERVEN MORRILL MACPHERSON LLP
25 METRO DRIVE
SUITE 700
SAN JOSE, CA 95110

EXAMINER

CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
----------	--------------

2621

DATE MAILED: 03/27/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/365,517

Applicant(s)
Hamid K. Aghajan

Examiner
Sheela Chawan

Art Unit
2621



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 20) ☐ Other:

Art Unit: 2621

DETAILED ACTION

Drawings

1. The drawings are objected to because of draftsman's remarks (see attached PTO-948).

Correction is required.

See MPEP 608.02(d) . Any structural details that is essential for a proper understanding of the disclosed invention should be shown in the drawing . MPEP 608.02(d). Correction is required

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 1- 3, 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Guest et al., (US. 6,252,981).

As per claim 1, Guest teaches an image processing system, a method for relating a first image to a second image comprising the acts of:

(a) aligning (note, aligning the image is finding the bestfit or match of the two images, fig 5, 514) the first image (note, selecting the first image , fig 5, 502) with a second image (fig 5, 508) ; and,

Art Unit: 2621

(b) plotting the gray level (gray levels are based on the digitizer values 208 . The brightness and other image data of each die image may be normalized so that die images are not rejected as the result of lighting variations or other lighting condition do not effect the die quality , column 4, lines 36- 52) of a pixel from the first image against the gray level of a corresponding pixel from the second image for all aligned pixel locations (comparing the first die image to a second die image based on the pixel tp pixel so as to generate a difference image, column 5, lines 1-37, column 6, lines 19-25, lines 36-52) .

As per claim 2, Guest teaches the method of claim 1 further comprising the act of plotting a threshold (column 4, lines 47-52, window (note, edge variations between first image and second image, column 8, lines 6-9)on a plot created in act (b).

As per claim 3, Guest teaches the method of claim 1 wherein a plot created in act (b) is stored in a memory array variable (fig 2, 204, column 3, lines 13-19) .

As per claim 5, Guest teaches a computer-readable medium storing a program for carrying out the method of claim 1 (column 3, lines 13-19) .

As per claim 6, Guest teaches a computer-readable medium comprising:
a plurality (column 4, lines 26-31) of memory (column 4, lines 53-58) locations storing data representing a first image and an associated second image, said first and second images each having a plurality of pixels with each pixel being defined by a location coordinate and a gray level (column 5, lines 10- 30) ; and,

an array comprising a plurality of memory locations storing data representing a plot of the

Art Unit: 2621

gray levels of pixels from the first image (column 4, lines 26-58) against the gray levels of corresponding pixels from the second image (column 6, lines 5- 40) .

As per claim 7, Guest teaches a defect inspection system comprising:

(a) an image acquisition unit being operable to acquire a first image (fig 5, 502) and an associated second image (fig 5, 512, column 2, lines 2- 7), the first and second images each having a plurality of pixels with each pixel being defined by a location coordinate and a gray level (column 5, lines 11-32) ;

(b) a plurality (column 4, lines 26-31) of memory (column 4, lines 53-58) locations storing data representing the first image and the second image (column 5, lines 10- 30); and

© a processor (column 6, lines 5- 25) being operable to plot the gray levels of pixels from the first image against the gray levels of corresponding pixels from the second image (column 5, lines 1-37, column 6, lines 5- 40) .

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2621

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 4, is rejected under 35 U.S.C.103(a) as being unpatentable over Guest et al., (US. 6, 252,981), as applied to the above claims 1-3, 5-7, and further in view of Webb et al., (US. 6,285,397).

Although, Guest discloses system and method for selection of a reference die for determining whether other dies that are formed from the wafer contain defects or flaws , but fails to specifically mention about a display video monitor .However, Webb discloses CRT alignment and more particularly to the use of processor and memory within a host computer to store, process , and transfer necessary correction factor data to align video display on CRT devices (column 3, lines 53- 64), as shown by Webb the use of a display video monitor, because this would provide any desired number of individual correction factor parameters , both static and dynamic , , may be applied by the method of this invention to produce the desired aligned , low distortion , video image (column 4, lines 38- 47) .

Art Unit: 2621

Therefore, it would have been obvious to one with ordinary skill in the art at the time of invention that by incorporate Webb's system by using a display video monitor of Guest , because, one with ordinary skill in the art would realize that this would produce the desired aligned , low distortion , video image , as suggested by Webb at (column 4, lines 38- 47) .

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koso (US.4,783,826) discloses pattern inspection system .

Rosenbaum et al., (US. 5,592,236) discloses method and apparatus for overlaying two video signals using an input-lock.

Maeda et al., (US.4, 511, 929) discloses picture image information recording apparatus.

Straayer et al., (US. 5, 506, 793) discloses method and apparatus for distortion compensation in an automatic optical inspection system.

Bradley (US. 33, 894) discloses apparatus and method for reading and writing text characters in a graphics display .

Art Unit: 2621

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Chawan whose telephone number is (703) 305-4876.

If attempts to reach the examiner on Monday through Thursday from 8:30 a.m. to 5:00 p.m. by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872 - 9314, (for formal communications intended for entry)

Or: Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703)305-3900.

SC
Sheela Chawan
Patent Examiner
Group Art Unit 2621
March 11, 2002


LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600